

PATENT COOPERATION TREATY

**PCT**

**INTERNATIONAL SEARCH REPORT**

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>LP2019PC00</b>	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. <b>PCT/EP2005/001781</b>	International filing date (day/month/year) <b>21/02/2005</b>	(Earliest) Priority Date (day/month/year) <b>19/02/2004</b>
Applicant <b>LONZA AG</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b.  With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2.  Certain claims were found unsearchable (See Box II).

3.  Unity of invention is lacking (see Box III).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. \_\_\_\_\_

as suggested by the applicant.

as selected by this Authority, because the applicant failed to suggest a figure.

as selected by this Authority, because this figure better characterizes the invention.

- b.  none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2005/001781

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 C07D333/20 C07D333/22 C07C213/00 C07B53/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 C07D C07C C07B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ROBERTSON D W ET AL: "ABSOLUTE CONFIGURATIONS AND PHARMACOLOGICAL ACTIVITIES OF THE OPTICAL ISOMERS OF FLUOXETINE, A SELECTIVE SEROTONIN-UPTAKE INHIBITOR" JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY, WASHINGTON, US, vol. 31, no. 7, 1 July 1988 (1988-07-01), pages 1412-1417, XP000568845 ISSN: 0022-2623 scheme 1 on page 1413 page 1416, column 1, paragraph 6	10
X	US 6 008 412 A (RATZ ET AL) 28 December 1999 (1999-12-28) column 2; claims 3,4,7,8; examples 1-3,7,8,10	10  -/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

31 May 2005 ✓

Date of mailing of the international search report

13/06/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
 NL - 2280 HV Rijswijk  
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
 Fax: (+31-70) 340-3016

Authorized officer

Bakboord, J

## INTERNATIONAL SEARCH REPORT

International Application No PCT/EP2005/001781
---

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	SAKURABA S ET AL: "EFFICIENT ASYMMETRIC HYDROGENATION OF BETA- AND GAMMA-AMINO KETONE DERIVATIVES LEADING TO PRACTICAL SYNTHESIS OF FLUOXETINE AND EPROZINOL" CHEMICAL AND PHARMACEUTICAL BULLETIN, PHARMACEUTICAL SOCIETY OF JAPAN, TOKYO, JP, vol. 43, no. 5, 1995, pages 748-753, XP001071298 ISSN: 0009-2363 page 751, column 1, paragraph 5 - column 2, paragraph 1; table 1	1-10
Y	"Prepn. of optically active beta-aminoalcohol - by asymmetric hydrogenation of acid salt of 1-phenyl-3-amino:propanone using metal complex catalyst having phosphino:pyrrolidine ligands" DERWENT, no. 131254, 1993, XP002293166 LONDON GB abstract & JP 05 070412 A (FUJI YAKUHIN KOGYO KK; others: 01) 23 March 1993 (1993-03-23) abstract	1-10
Y	EP 0 457 559 A (ELI LILLY AND COMPANY) 21 November 1991 (1991-11-21) page 5, paragraph 1; claims 1,6; examples 1,4 page 3, line 16 - line 19	1-10
A	WO 2004/005239 A (LONZA AG; MICHEL, DOMINIQUE) 15 January 2004 (2004-01-15) page 6, line 23 - line 30; claims 1,5,10,11; examples 9,10 page 4, line 8 - page 5, line 9	10
A	WO 2004/005307 A (LONZA AG 'CH!; MICHEL DOMINIQUE 'CH!) 15 January 2004 (2004-01-15) claims 1,13-16; examples 1,2	12

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2005/001781

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 6008412	A 28-12-1999	AU 744895 B2 AU 9663698 A BR 9813036 A CA 2306768 A1 CN 1275077 A EP 0909754 A1 HU 0003807 A2 ID 24567 A JP 2001519385 T NO 20001728 A PL 339865 A1 TR 200000969 T2 TW 514634 B WO 9918947 A1 ZA 9808635 A		07-03-2002 03-05-1999 15-08-2000 22-04-1999 29-11-2000 21-04-1999 28-04-2001 27-07-2000 23-10-2001 04-04-2000 15-01-2001 21-09-2000 21-12-2002 22-04-1999 02-05-2000
JP 5070412	A 23-03-1993	NONE		
EP 0457559	A 21-11-1991	CA 2042346 A1 EP 0457559 A2 FI 912280 A HU 57760 A2 IE 911677 A1 JP 4226948 A		18-11-1991 21-11-1991 18-11-1991 30-12-1991 20-11-1991 17-08-1992
WO 2004005239	A 15-01-2004	AU 2003250924 A1 BR 0312651 A CA 2491472 A1 WO 2004005239 A1		23-01-2004 26-04-2005 15-01-2004 15-01-2004
WO 2004005307	A 15-01-2004	AU 2003253036 A1 WO 2004005307 A1		23-01-2004 15-01-2004